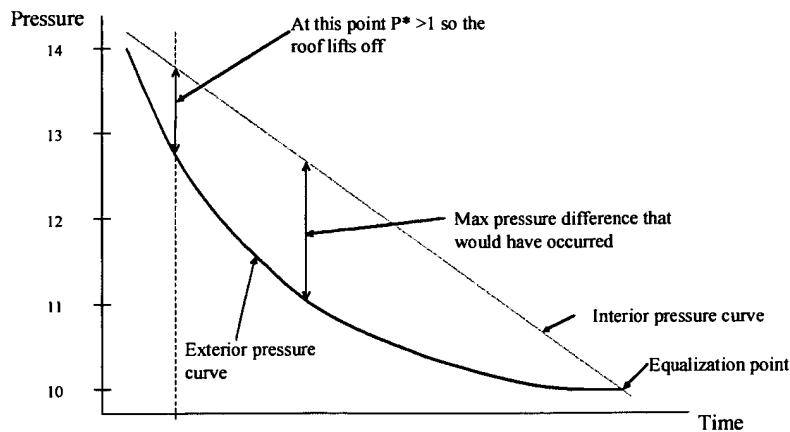


The use of venting in the roof of a building to equalize pressure is not new. There are several patents that I have found in my search which deal with this. (Title pages and abstract are enclosed in accompanying envelope). In all cases they have as their stated objective the equalization or relief of a pressure difference between the interior and exterior of the roof. I stress again that this is distinctly different from what my roof vent system achieves. Any hole such as a chimney flue or even a crack in a roof will allow for the equalization of pressure eventually. It will not necessarily however, prevent a pressure difference that is sufficient to lift off the roof, from developing. (This pressure difference is quantified by measuring the weight/area of the roof, the tensile strength of the roof material, and the tensile strength of the connections attaching the roof to the walls.)

Graphical representation of the distinction between using a vent to equalize pressure and my vent system which prevents a specific pressure difference from occurring (arbitrary values and units used)

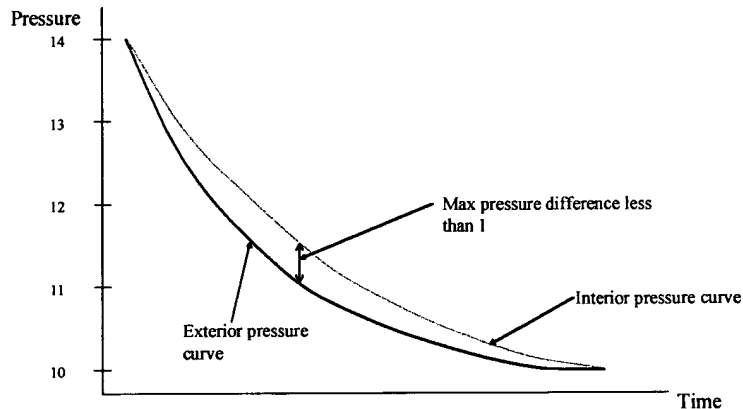
Use of vents to equalize pressure



Any pressure difference greater than 1 unit has been shown sufficient to lift off the roof. It can be seen that as soon as the pressure difference became greater than 1 the roof blew off. Equalization of pressure through venting would hypothetically have been reached if

the roof had remained on. As it happens equalization occurred much sooner (as soon as the roof came off).


Use of vents to limit the pressure difference across a roof



Again, let it be accepted that roof lift off (loss) occurs at 1 unit pressure difference. At no time is a pressure difference allowed to occur across the roof which is greater than 1. Thus the roof will not lift off.

To ensure this relationship between the two curves, a calculation that takes data about the worst-case scenario pressure change above a roof, the volume of the building in question and various other parameters is used. The resulting equations generate a value for the surface area of open roof venting required to ensure that the interior and exterior pressure curves maintain acceptable relative positions. No equations of this nature are evident in the prior art that I have uncovered. This fact highlights the claim that my invention is new and distinct from the prior art, because it is only through the use of such equations that the ability of a vent to limit a pressure difference actually becomes useful. Thus, prior art showed an appreciation of a vents ability to equalize pressure, however no understanding of the fact that a vent may be used to limit a pressure difference is in evidence.

In summary, my arguments are that:

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1. A roof vent system that prevents roof loss due to high winds is certainly useful.
 2. It is new as far as any prior art that I have uncovered. The use of vents to equalize or relieve, pressure is not new, but the use of a roof vent system to prevent a pressure difference greater than a specified value across a roof is new.
 3. I feel that once this has been explained to someone it should be obvious. However, I think that everything is 'obvious' once one has had it explained and understands it. The best argument for not being obvious is probably that if this invention is very useful, and it has not been patented or implemented anywhere, then it cannot be all that obvious.